REMARKS

Claims 1-12 are pending. Claim 12 has been added. No claims have been allowed.

The Examiner rejected Claims 1 and 3-10 under 35 U.S.C. §103(a) as being obvious over Japanese Patent No. 04254154 to Yoshida et al. ("Yoshida et al. '154") in view of U.S. Patent No. 4,474,018 to Teagan ("Teagan '018"). The Examiner additionally rejected Claims 2 and 11 as being obvious over Yoshida et al. '154 in view of Teagan '018 and further in view of U.S. Patent No. 6,729,151 to Thompson ("Thompson '151").

Yoshida et al. '154 discloses a water heating system, shown in Fig. 1, in which a working fluid is compressed by lower stage compressor 1 before passing through auxiliary condenser 2 located within the lower portion of water tank 11. Thereafter, the working fluid is compressed by higher stage compressor 3 before passing through heat exchanger 4 in the upper portion of water tank 11. As may be seen in Fig. 1, compressor 1, condenser 2, compressor 3, and heat exchanger 4 are arranged in series. After exiting heat exchanger 4, the working fluid passes through expansion device 5 and evaporator 6 before returning to lower stage compressor 1. A similar embodiment is shown in Fig. 2.

Teagan '018 discloses a water heating system, shown in Fig. 1, in which a working fluid is compressed by two-stage compressor 18. A first portion of the working fluid at intermediate pressure passes through low pressure condenser 12 and thereafter through capillary tube 26 to evaporator 31. A second portion of the working fluid at high pressure passes through high pressure condenser 14 and thereafter through capillary tube 24 to evaporator 31. After exiting evaporator 31, the working fluid at low pressure passes back into compressor 18. Pump 10 pumps water from water tank 6 through water jackets 17 and 15 which are arranged in series about low and high pressure condensers 12 and 14, respectively, and the water is thereby heated before returning to water tank 6. A similar embodiment is shown in Fig. 6.

Thompson '151 discloses a heat pump system 6, shown in Fig. 2, which includes liquid/gas heat exchanger 22 which transfers heat from the working fluid leaving condenser 14 to the working fluid leaving evaporator 20 to increase the overall efficiency of the system. A fluid to be heated, such as water, passes through a pair of heat exchangers 14 and 8 which are arranged in series.

Amended independent Claim 1 calls for a water heating system, including, *inter alia*, a water circuit with a first heat exchanger and a second heat exchanger operably disposed in said water circuit, said first heat exchanger and said second heat exchanger arranged in parallel.

Amended independent Claim 9 and new independent Claim 12 each call for a method of heating water, including the step of, *inter alia*, providing a water circuit including a water storage vessel, and first and second heat exchangers arranged in parallel within the water circuit.

Referring to Fig. 1 of the present patent application, the water circuit of water heating system 10 includes a first heat exchanger 48, as well as a second heat exchanger 50, 52, which are arranged in parallel. (*See* the discussion at paragraph [0019]). Advantageously, this arrangement allows both the first and second heat exchangers 48 and 50, 52, respectively, to each transfer heat from the refrigerant to relatively cool water, increasing the efficiency of the system.

Applicant respectfully submits that amended independent Claims 1 and 9, as well as new independent Claim 12, are not obvious over Yoshida et al. '154 in combination with Teagan '018 or Thompson '151 because each of the foregoing references fails to disclose a water heating system (or method) including a water circuit having a water storage vessel, and first and second heat exchangers arranged in parallel.

By contrast, in the system of Yoshida et al. '154, compressor 1, condenser 2, compressor 3, and heat exchanger 4 are arranged in series. In the system of Teagan '018, water jackets 17 and 15 of the water circuit are arranged in series and similarly, in the system of Thompson '151, heat exchangers 14 and 8 are arranged in series.

Thus, Applicant respectfully submits that amended independent Claims 1 and 9, Claims 2-8, 11 and 12 which depend therefrom, respectively, as well as new independent Claim 12, are not obvious over Yoshida et al. '154 in combination with either Teagan '018 or Thompson '151.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicant respectfully submits that the application is in condition for allowance and respectfully requests allowance thereof.

In the event Applicant has overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby petitions therefor and authorizes that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Should the Examiner have any further questions regarding any of the foregoing, the Examiner is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,

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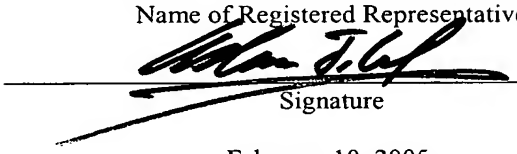

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